PhD REVIEW



Social capital and health implications for health promotion

Malin Eriksson^{1,2}*

¹Department of Public Health and Clinical Medicine, Epidemiology and Global Health, Umeå University, Umeå, Sweden; ²Department of Social Work, Umeå University, Umeå, Sweden

This article is a review of the PhD Thesis of Malin Eriksson, entitled 'Social capital, health and community action - implications for health promotion.' The article presents a theoretical overview of social capital and its relation to health, reviews empirical findings of the links between social capital and (self-rated) health, and discusses the usefulness of social capital in health promotion interventions at individual and community levels. Social capital, conceptualized as an individual characteristic, can contribute to the field of health promotion by adding new knowledge on how social network interventions may best be designed to meet the needs of the target group. The distinction of different forms of social capital, i.e. bonding, bridging, and linking, can be useful in mapping the kinds of networks that are available and health-enhancing (or damaging) and for whom. Further, social capital can advance social network interventions by acknowledging the risk for unequal distribution of investments and returns from social network involvement. Social capital, conceptualized as characterizing whole communities, provides a useful framework for what constitutes health-supporting environments and guidance on how to achieve them. Mapping and mobilization of social capital in local communities may be one way of achieving community action for health promotion. Social capital is context-bound by necessity. Thus, from a global perspective, it cannot be used as a 'cookbook' on how to achieve supportive environments and community action smoothly. However, social capital can provide new ideas on the processes that influence human interactions, cooperation, and community action for health promotion in various contexts.

Keywords: social capital; health promotion; social network interventions; supportive environments; community action self-rated health

This article has been commented on by Catherine Campbell. Please follow this link http:// $www.globalhealthaction.net/index.php/gha/article/view/5964-to\ read\ her\ Commentary.$

Received: 10 September 2010; Revised: 29 November 2010; Accepted: 2 December 2010; Published: 8 February 2011

n 1995, less than five articles on social capital and health were indexed in MEDLINE compared to at least 100 in 2006 (1). In 2010, the number of MEDLINE indexed papers on social capital and health had increased to 479. Several definitions of social capital exist, and depend partly on the originating discipline. But all have in common that social capital concerns 'social networks, the reciprocities that arise from them and the value of these for achieving (mutual) goals' (2, p. 2, original quote is without parentheses around 'mutual').

Despite more than a decade of research on social capital and health, the picture remains unclear. The theoretical and empirical links between social capital and health are still not resolved and the meanings of different forms of individual and collective social capital and their implications for health and health promotion need further exploration. In addition, the social capital literature is criticized for being 'gender and power blind,' and there is a need to include questions about the distribution of social capital, the amount and forms of social capital that are available for different groups,

and the balance between investments and returns of social capital for these groups (3).

The overall aims of this article are to review the relationships between social capital and health and to discuss implications for health promotion. More specifically, the article aims to:

- (1) Give a theoretical overview of individual and collective social capital and how they are related to health.
- (2) Review empirical findings that link various forms of social capital to (self-rated) health for different social groups.
- (3) Discuss the usefulness of social capital in health promotion interventions at individual and community levels.

Social capital and health - theoretical overview

In sociology, the ideas behind social capital have roots dating back to Durkheim. It was not until the 1980s that the term was used in sociological writings by the French sociologist Pierre Bourdieu. However, it was the work of the American political scientist, Robert Putnam, which initially was the most utilized within health research. Both of these authors are considered influential theoretical contributors, with Bourdieu being a proponent of an individual approach and Putman having a more collective approach to social capital. Whether social capital is an individual or a collective feature is still debated. Within current health research, social capital is often viewed as both an individual and a collective feature, although the explicit choice of level of analysis requires different considerations and methods (1). In this section I will describe these approaches and how they are related to health.

Social capital as an individual asset – social network approaches

These approaches have their theoretical origin in sociology. Social capital is broadly seen as 'the ability of actors to secure benefits by virtue of membership in social networks and other social structures' (4 p. 6). Thus, by belonging to social networks, individuals can secure certain benefits and resources that would not be possible in the absence of these networks. The resources do not reside within the individual (i.e. intrapersonal resources) but in the structure of his/her social networks

According to Bourdieu, inclusion in social networks is not something inherently possessed. Those with more resources to invest are more easily invited into powerful networks. Bourdieu highlights the role that power and inequality have on social capital and claims that dominant societal groups have more power to decide what networks

are valuable and to include or exclude people from these networks (5).

Coleman (6) views social capital as a resource for action and identifies three forms: (1) obligations, expectations, and trustworthiness; (2) information channels; and (3) norms and effective sanctions. Doing something for others establishes an obligation for the others to reciprocate, thus influencing actions. Information constitutes an essential basis for actions; one vital form of social capital is therefore the potential information embedded in social relations. Existing norms also have powerful effects on actions through the rewards that can be expected if one adheres to the norms or by effective sanctions if one does not follow the norms.

Portes (4) adds to the concept of individual social capital when distinguishing between sources and effects of social capital. He makes a distinction between characteristics of the networks per se (i.e. motivations to make resources available) as the sources, while the actual resources provided (e.g. information, support, and opportunities) are defined as the effects of social capital. According to Portes, people can be willing to make resources available because of internalized norms to behave in a proper way, or because of solidarity with people who one can identify as sharing a 'common fate.' Further, reciprocity *norms* can make people willing to make resources available because of expectations of repayment. Further, Portes (4) contributes with valuable insights on the potential negative effects of social capital. The same ties that benefit members of a network may also lead to exclusion of outsiders. Strong supporting networks may result in an *overload of demands* on some (particularly successful) group members to make resources available. In addition, group participation necessarily demands a certain level of conformity that might produce restriction in individual freedom.

Individual social capital and health

Berkman and Glass (7) present several hypotheses about the link between resources embedded in social networks and health. The most obvious association is that involvement in social networks provides various forms of social support that may influence health by functioning as 'buffering factors' for stress (8). Social influence is another pathway between social networks and health (7). The influence of peers on health behaviors such as smoking and diet is clearly documented in health promotion (9). Further, social participation provides opportunities to learn new skills and confers a sense of belonging to one's community (7). Thus, social participation can influence health directly by activating cognitive systems, and indirectly by giving a sense of coherence and meaningfulness (7). Finally, group membership can also provide access to material resources and services with a direct bearing on health, such as job opportunities and health service (7). A more recent hypothesis relates individual position or status in the social hierarchy of one's social network or community. Marmot (10) discusses this in terms of the 'status syndrome.' Having more opportunities than others within the same environment gives status; status is believed to influence health by the positive feelings of being privileged as well as by decreasing stress.

Social capital as a collective attribute - social cohesion approaches

Within social cohesion approaches, social capital is viewed as a collective feature characterising whole communities. These approaches have their theoretical basis in the writings of Robert Putnam (11, 12). Putnam suggests that social capital, beside being a private good, is a collective and non-exclusive good in that living in a high social capital area can be beneficial even for individuals with poor social connections, with 'spill over' benefits gained from living in a high social capital community (12).

Following Putnam (11, 12), a high social capital community is characterized by the existence of dense and strong associations, and active citizens who are able to put public before private good. Further, citizens act as equals with the same rights and obligations for all, and horizontal relations of reciprocity are common. Finally, levels of interpersonal and generalized trust are high, which encourages people to cooperate on the basis of expected reciprocity.

Studies from the UK (13) and Sweden (14) illustrate the complexity of social capital in local communities, and indicate a need to go beyond Putnam's 'romantic' view of community. Westlund (15) suggests that the knowledge society, where internet communication partly replaces civil association activities, has led to societal fragmentation and consequent changes in social capital. Instead of being a pure public good, social capital has become a 'club good' for diverse subgroups within a community or society.

In addition, social scientist Michael Woolcock's work can be classified into a collective approach of social capital. He defines social capital as 'norms and networks that facilities collective action' (16 p. 13). Szreter and Woolcock (17) add to Putnam's communitarian view by discussing the macro political prerequisites for the development of trusting norms. They emphasize not only the importance of social ties within and between groups in a community, but also between citizens and various political institutions in a society. Just like Portes (4), Woolcock (16) underlines the importance of separating sources and consequences of social capital. According to him, trust is to be viewed as a consequence of social capital (16). This notion is in opposition to Putnam, who sees trust as a precondition for cooperation (11). However, Putnam's view has been criticized for its circular reasoning (18). In an attempt to sort out the sources and consequences of collective social capital in relation to health, I adhere to Woodcock's view, but am aware that trust is not universally acknowledged as an outcome of social capital.

Collective social capital and health

The potential links between collective social capital and health are still heavily debated. One possible pathway is that social capital has a mediating role between income inequality and health. This hypothesis was first developed by Wilkinson (19). His work built on studies showing that health is better and life expectancy is longer in populations with low degrees of income inequality. Wilkinson's explanation is that equal societies are more socially cohesive than less equal societies. Thus, equal income distribution leads to a positive social environment which is characterized by trust and social cohesion among citizens. Correspondingly, unequal societies have greater differences in status between citizens, creating mistrust and a decline in social cohesion, as well as high levels of crime and social anxiety (19).

In their early writings, Kawachi and Berkman (20) viewed social capital as a pure collective feature that is clearly distinguished from the research field of social networks. According to them (20), social capital should be viewed as a feature of the community or neighbourhood to which the individual belongs. When discussing how (collective) social capital can affect individual health, Kawachi and Berkman (20) end up with similar explanations for social networks and health, namely that collective social capital influences health by influencing behaviors, access to health services, and psychosocial processes. This reasoning is problematic since it seems reasonable that social capital as a 'pure collective characteristic,' distinct from social networks, would have more 'pure collective effects' on health. Woolcock (16), and Grootaert and van Bastelaer (21) offer a solution for this when they recognize collective action and trust as consequences of (collective) social capital. This distinction may clarify how individual, as opposed to collective social capital, is related to health in different ways.

Turner (22) offers an alternative explanation of the association of income distribution and health. According to him, income equality not only increases social cohesion in a society, but also influences the level of public investment in housing, health care, etc., which thereby affect population and individual health. Other hypotheses of the links between collective social capital and health relate to how collective action can influence health. Kawachi and colleagues (23) note that a cohesive neighborhood is more successful in uniting for the best interest of the neighborhood. Consequently, communities rich in social capital can be more successful in influencing political decisions and fighting cuts to local services such as health care. High levels of social capital in local communities can influence health through the spread of healthy norms (23). Further, collective social capital is believed to facilitate faster and wider diffusion of (health) information and knowledge, which thereby can affect health (24). Finally, environments characterized by trust, participation and mutual support are believed to constitute 'health-enabling communities,' in that these communities are most likely to support health-enhancing behaviors (25). These beliefs are built on the notion that health behavior is determined more by collective social identities than by rational individual choices.

Links between social capital and health – a summary

The hypotheses linking individual and collective social capital to health are summarized in Fig. 1. I believe that sources of social capital, in terms of macropolitical structure and network characteristics, can be the same regardless of the level of analysis. In contrast,

the consequences of social capital and their influence on health may differ depending on the level of analysis.

Starting at the individual level, internalized norms make people obligated and willing to 'behave in the right manner,' such as supporting others. In addition, solidarity can make people willing to help others. Further, social support positively influences health by reducing stress for those who access various forms of support. Social support may also have a negative effect on health by increasing stress due to excessive demands on the support provider. Norms and solidarity can also affect health by social influence between members of a network. Trusted peers may influence health behaviors in others by functioning as role models. This influence can be either health-enhancing or health-damaging depending on the existing norms in the network. Strong norms and solidarity may also lead to high social control, which

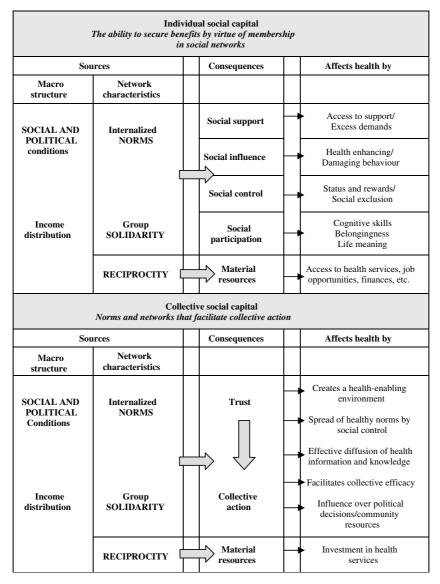


Fig. 1. Individual and collective social capital; sources, consequences and how they are related to health.

enables the network to control the norm compliance. Those who follow the norms are rewarded with status, with a positive effect on health, while those failing to adjust to the norms are 'punished' or socially excluded. Finally, norms and solidarity can make people willing or obliged to participate in various social activities, which can positively influence health through feelings of life meaning, as well as by the achievement of cognitive skills. Norms and solidarity as a group characteristic have in common that people make resources available without expecting something in return (4). In contrast, reciprocity as a network characteristic is based on people's expectation to be repaid when they make resources available. Reciprocity can lead to possession of material resources, which can influence health through e.g. access to health services, and job opportunities.

The lower part of Fig. 1. is an attempt to clarify the pathways between collective social capital and health. As per Woolcock (16), Grootaert and van Bastelaer (21), trust and collective action are defined as outcomes of social capital at the collective level. The arrow from trust to collective action illustrates that trust in turn facilitates collective action. An environment characterized by trust is believed to support health-enhancing behaviors (25). The diffusion of health information can be more effective in an environment characterized by trust, which thereby has a positive effect on health. Further, in an environment where people trust each other, healthy norms are more easily spread since social interaction is high. Collective action can have a direct influence on resource allocation in neighborhoods. Community members can increase control over their lives and environment through collective actions, which in addition to providing access to resources, may increase the capability of communities and individuals to change health-related behaviors. Finally, reciprocity norms at the community level may

lead to higher levels of public investments that can influence population health through access to health services.

Different forms of social capital

The theoretical development of social capital has led to important distinctions between different forms of social capital (26). Krishna and Shrader (27) describe *cognitive* social capital as the less tangible side of social capital; norms of trust, solidarity, and reciprocity. *Structural* social capital, on the other hand, refers to the composition, extent, and activities of local level institutions and networks (27). In short, structural social capital refers to what people *do*, while cognitive social capital refers to what people *feel* with regard to social relations (26).

Another important construct is the distinction between bonding, bridging, and linking social capital. *Bonding social capital* is characterised by strong ties within a network that strengthen common identities and functions as a source of help and support among members. *Bridging social capital* is characterized by weaker ties that link people from different networks together and become important sources of information and resources (12, 28). Szreter and Woolcock (17) introduced *linking social capital* which consists of vertical ties between people in different formal or institutionalized power hierarchies.

Fig. 2. illustrates the division between structural and cognitive social capital for individual and collective approaches to social capital. An individual can be involved in networks characterized by bonding, bridging and/or linking ties. Such individuals have access to different forms of structural social capital. Involvement in different networks results in the creation of reciprocity norms as well as trust between people. Being involved in close (i.e. informal) networks with strong ties between

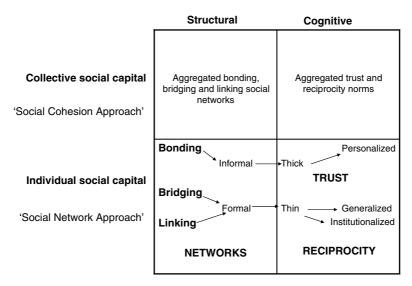


Fig. 2. Distinction of structural and cognitive forms of collective and individual social capital.

people who are similar to each other leads to 'thick' trust-trust in people known personally (personalized trust). Alternatively, involvement in bridging and linking (i.e. formal) networks gathers people with various backgrounds and may result in 'thin' trust - trust between people who do not personally know each other (see Putnam [12] for a discussion of thick and thin trust). Thin trust can further be divided into 'generalized' - trust in people in general, and 'institutionalized' – trust in public institutions (29). On a collective level, structural social capital is often defined and measured as aggregated levels of involvement, i.e. as the proportion of people involved in various types of networks in a certain area. Similarly, collective cognitive social capital is often defined and measured as aggregated levels of trust, such as the proportion of trusting individuals in a certain area.

Social capital and health – empirical evidence

A systematic literature review (42 papers in total) of the association between social capital and health across countries found significant associations between social capital and health in individual and ecological level studies. In contrast, studies investigating the link between collective social capital and health show inconclusive results (30). Similarly, in a systematic literature review of studies investigating the link between social capital and physical health, Kim and colleagues (24) conclude that the strongest associations are between individual social capital and health, particularly between cognitive components of social capital and self-rated health.

Our results (paper I) from a social capital survey in the Umeå region of Northern Sweden support a strong association between individual social capital and good self-rated health. Individuals with access to cognitive and structural social capital had higher odds ratio for good selfrated health compared to individuals with no access to these forms of social capital. This was true for men and women as well as for different educational groups (higher/ secondary/basic education). In accordance with previous research, we found this association stronger for cognitive than for structural forms of social capital. For example, people who said that they trust their neighbors (i.e. access to personalized trust, a cognitive form of social capital) were more than twice as likely to rate their health as good compared to those who answered that they did not trust their neighbors (31).

Some researchers (32, 33) suggest that inconclusive results about collective social capital and health clearly show that social capital is inappropriate for understanding contextual effects on health. Others state that the inconclusiveness is mainly due to lack of consistency in how (collective) social capital is measured and potential confounding is handled (34). In particular, the need to control for individual social capital, using multi-level approaches, has been pointed out (35). In addition, the

need for more area-based indicators of collective social capital has been stressed (26). Today, aggregated measures of individual trust and participation are the most commonly used measures of collective social capital (see 23, 34, 36–38), but these measures do not necessarily relate to the living area.

In paper II, we used survey data from the Umeå region to examine how different conceptualizations influence the association between collective social capital and selfrated health. We constructed two different measures of collective social capital; one trust-and-participationrelated (aggregated levels of trust and participation), and one neighborhood-related (aggregated perceptions of neighborhood relations) measure. Women (but not men) living in very high social capital neighborhoods were significantly more likely to rate their health as good or fair (good-fair) compared to women living in areas with very low social capital. After simultaneous control for sociodemographic factors and individual social capital, the probability for good-fair self-rated health remained significantly higher for women living in very high social capital areas compared to women living in very low social capital areas when using the neighborhood-related measure. This was not the case when the trust-and-participationrelated measure was used. Our results (39) indicate that area-based indicators may be a more appropriate measure to rule out potential health effects of collective social capital. In addition, we found an independent positive health effect of collective social capital for women but not for men.

Social capital and health promotion

Given what we know about the links between social capital and health, what are the possible implications for health promotion? The starting point for my discussion is the definition given by WHO in the Ottawa Charter:

Health promotion is the process of enabling people to increase control over, and to improve, their health. To reach a state of complete physical, mental and social well-being, an individual or group must be able to identify and to realize aspirations, to satisfy needs, and to change or cope with the environment. (40)

In this section I will discuss the challenges involved in (1) how individual social capital can be strengthened as a health promotion strategy, and (2) how collective social capital can be mobilized as a health promotion strategy.

Strengthening individual social capital

As stated earlier, there is growing evidence that individual social capital (i.e. involvement in social networks) can influence health and health behaviors in a positive way through social support, social influence, social participation, and access to material resources. The improvement and maintenance of health is dependent not only on

individual behaviors but also on the behaviors of significant others and the ability for fruitful communication within social networks. These ideas relate to the field of 'social network interventions' within health promotion.

Heaney and Israel (41) state that in order to diagnose the strengths and weaknesses of existing networks, any social network intervention needs to begin with an assessment of the networks available in the target population. However, they (41) underscore the improbability of finding one social network intervention model that is effective for everyone. These types of interventions need to be tailored to the needs and resources of the particular target group, but are most likely to be effective if developed within an ecological framework that considers many levels of influence. Critics have questioned whether social capital adds anything new to the field of social networks and health (42), or if it is like 'pouring old wine into new bottles' (43). On the other hand, a need for evaluation of carefully designed and theory-driven social network interventions to gain more knowledge about the most effective strategies has been stressed (41). Within this view, social capital has the potential to add new aspects.

The conceptualization of bonding, bridging, and linking social capital can guide the mapping of the kinds of networks available and for whom. In our social capital survey from Northern Sweden (31), women were more likely to have access to bridging social networks compared to men. Campbell and colleagues (13) examined community networks in two local communities in England. They found that women were more involved in strong face-toface local networks, often with other women, while men were more involved in non-local networks. The same study (13) found that women were generally acknowledged as those who 'create local community' and this was possibly steered by gender expectations of women as primarily responsible for the home and living environment. We believe that women's greater involvement in bridging social networks may be a result of existing gender relations with higher expectations that women should be involved, for example, in children's activities.

We found (31) that people with higher education were more likely to have access to all forms of social capital. This was particularly true for bridging social networks; those with higher education were more than four times more likely to have access to this form of social capital compared to people with basic education. Ziersch (44) also found that those with greater resources and higher education had higher access to social capital in Australian households. According to Bourdieu (5), one could assume that the resources resulting from higher education also facilitate access to social capital.

The distinction of bonding, bridging, and linking can be further utilized to map out which forms of social networks are health enhancing or damaging, and for whom. Our results did not indicate that some forms of social capital

might be bad for health, although this has been found in other studies. Mitchell and LaGory (45) investigated the link between individual bonding (community involvement) and bridging (trust and bridging ties) social capital and mental health in an impoverished neighborhood in a southern US city. While bridging social capital showed a small inverse association with distress, community involvement seemed to increase an individual's level of mental distress. A study on urban-rural networks during the 1997-1999 Indonesian economic crisis found that women's involvement in bonding social networks had protective effects for families during times of crises, but higher costs than benefits for the women themselves. This was due to gender expectations that women should care for other family members (46). Kawachi and Berkman (47) reviewed the literature on social ties and mental health and found that the supporting effects of social connections are not equally shared, but influenced by gender expectations on women to be the primary providers of support to others. Thus, social capital can further advance social network interventions by acknowledging the risk for unequal distribution of investments and returns from social network involvement.

Mobilizing collective social capital

Mobilizing collective social capital connects to the 'community development approach' of health promotion. Health promotion programs that build on community development principles do not have the main objective of preventing a specific disease or promoting a specific health outcome. Rather, they build community capacity to improve the foundation for a flourishing community (48). These kinds of programs underscore the 'importance of creating environments in which individuals and communities can become empowered as they increase their community competence or problem-solving ability' (48 p. 305).

The 1986 Ottawa Charter (40) established five action areas for health promotion: (1) Building Healthy Public Policy; (2) Creating Supporting Environments; (3) Strengthening Community Actions; (4) Developing Personal Skills; and (5) Reorienting Health Services. A supporting environment means that people take care of each other and their communities. Supporting environments could thus be connected to what Campbell and Jovchelovitch (25) call 'health-enabling communities' that are characterized by participation, mutual support, and trust. Health promotion should work through effective community action, where community members set the priorities, plan strategies and implement them for achieving better health (40). These two goals for health promotion go hand in hand with the ideas behind collective social capital, since community (i.e. collective) action is viewed as a consequence of social capital at the community level. Mobilizing social capital in local

communities could therefore be seen as a key goal for community development approaches in health promotion.

Our survey results reported in paper II (39) show that collective social capital, i.e. living in neighborhoods where one is expected to be engaged in issues that concern the living area, where it is common that neighbors talk to each other, and where people care for and help each other, increases the likelihood for good-fair health among women. These neighborhood characteristics might therefore constitute supporting environments and health-enabling communities, at least for women. Similar observations were made in a study from Tasmania, Australia (49) that showed how neighborhood safety and political participation reduced the risk for poor self-rated health among women but not men. Likewise Stafford and colleagues (50) found that living in a neighborhood with low levels of trust and integration increased the odds ratio for poor self-rated health among women but not men. The explanation for these gendered health effects of collective social capital need to be explored further.

Collective social capital may also have indirect positive effects on health by facilitating the ability of communities to work together to solve collective health problems (24). Paper III reports a qualitative case study where Putnam's analytical frame was used to explore social capital in a small community in Northern Sweden (14). Our case community was selected on the basis of a recent experience with a successful community action process. Due to a decreasing population, the primary health care center was closed. This political decision was strongly opposed by the community and triggered several community actions. The end result was the establishment of an association-driven health center. Existing social capital in this community was characterized by high levels of civic engagement that seemed to be inherited from one generation to the next (14). Strong and dense associations played an important role in getting people involved, and powerful 'helping-out norms' obligated people to engage in the community. Strong leaders set the norms and functioned as role models for participation. Effective information channels, e.g. faceto-face meetings, guaranteed that almost everyone was invited to participate. However, those who did not engage were seen as outsiders. According to Wakefield and Poland (51), strong community connections may also lead to increased social exclusion, an idea that was confirmed in our case study. In summary, existing social capital was mobilized and improved the capacity of our case community to work together to solve a collective health problem, but also risked increasing social exclusion for some groups (14). We concluded that there is a need to move beyond Putnam's theoretical concepts in order to achieve a comprehensive understanding of how social capital facilitates community action for health promotion purposes.

One premise is that mobilization of social capital may be a prerequisite for successful community health promotion (52). However, we still have limited knowledge on how social capital could be mobilized in local communities (53). Paper IV analyzes the social mechanisms underlying the community process of mobilizing social capital in our case community (54). A grounded theory situational analysis resulted in the construction of four categories representing mechanisms active in the mobilization process: *motives*, acts, explanations, and agency relations. These mechanisms worked through seven collective actors who were active in the process. Social capital was mobilized through interactions between significant collective actors, i.e. actors performing a collective identity and acting not as representatives for themselves, but for different social worlds in the community (55). Some collective actors stood out as the most influential for the mobilization to succeed. Trusted community leaders took the lead and got others involved, representing 'The enthusiast' and bringing fighting spirit to the process. Charismatic people from outside the community brought knowledge and significant resources into the process, representing 'The entrepreneur' - a collective actor who added know-how to the process. Most people were not personally involved but were 'carried away' by the strong emotions of the process and supported their local leaders. This broad majority represented 'The conformer,' a collective actor who offered broad support and legitimacy to the process. In addition, the significance of a joint 'enemy' was identified. The political policy of decreasing resources was viewed as a threat. When the health center closed, this threat became visible and took the shape of the politicians who actually closed the health center. They became a symbol of 'The enemy,' a collective actor who served as a trigger in the mobilization process.

In summary, intentional mobilization of social capital in local communities for the purpose of health promotion needs to:

- (1) identify what must be overcome in the defined community (e.g. lack of safety, public services, a disease);
- (2) use the force of fighting spirit from trusted local leaders:
- (3) allow know-how from people inside and outside of the community who have significant resources and interest in the issues of concern;
- strive for broad community support and legitimacy by reaching out to everyone with a personal invitation to join the process.

Discussion

The studies included in my thesis (56) support the idea that access to social capital is associated with good selfrated health and that strengthening individual social capital can be an important health promotion strategy.

The distribution of social capital differs between different societal groups and this needs to be acknowledged. Designing and implementing social network health interventions requires an awareness of individuals' unequal opportunities to join networks, and mandates serious efforts to involve all groups in supporting network activities.

In addition, the thesis supports collective social capital as positively associated with self-rated health for women but not for men. Mobilizing collective social capital may therefore be more health-enhancing for women. Collective social capital may also have an indirect positive effect on health for everyone by increasing the capability of communities to work together to solve collective health problems. Social capital in local communities can facilitate collective actions for public good, but may also increase social exclusion. Thus, mobilizing social capital in local community requires an awareness of the risk for increased social inequality.

The concept of social capital within health research has been heavily debated and criticised. Social capital research has been said to downplay the importance of material factors in public health in favor of psychosocial explanations (33). As such, social capital risks being used as an alternative to health policy based on state driven redistribution of resources (57). Muntaner and colleagues (57) suggest that a communitarian view of social capital represents a model of the social determinants of health without including analyses of structural inequalities in health such as class and gender. These inequalities may lead to blaming the victim of impoverished communities. Szreter and Woolcock (17) offers an intermediate view by saying that both material and psychosocial explanations are valid and do not contradict each other in explaining or targeting social inequalities in health. By adding the importance of state-society relations (i.e. linking social capital) Szreter and Woolcock (17) integrate social capital into the macro political system and demonstrate how the formation and quality of social networks are shaped by political and structural factors. They (17) state that material needs are required to improve health, but the capability to benefit from these material needs often goes through social relations. Hawe and Shiell (58) conclude that social capital may add little to what we already know about community health promotion, but see a possible advantage in the rhetoric of social capital since it may invite 'new players' into the health promotion sector.

I believe in the power of rhetoric and think that labelling 'old facts' with new terms can help us gain new knowledge within the complex fields on health promotion and the social determinants of health. Finally, I agree with the concluding remark of Wakefield and Poland (51 p. 28 29) about the role of social capital in health promotion: 'A construction of social capital which explicitly endorses the importance of transformative social engagement, while at the same time recognizing the potential negative consequences of social capital development, could help community organizers build communities in ways that truly promote health.'

Conclusion

Social capital, viewed as an individual characteristic, can contribute to the field of health promotion by adding new knowledge on how social network interventions may best be designed to meet the needs of the target group. The distinction of different forms of social capital, i.e. bonding, bridging, and linking, can be useful in the mapping of the types of networks available and for whom, as well as sorting out the forms of networks that are health enhancing or damaging and for whom. In addition, social capital can advance social network interventions by acknowledging the risk for unequal distribution of investments and returns from social network involvement.

Social capital, conceptualized as something that characterizes the whole community, contributes to the community development approach within health promotion. It provides a useful framework and starting point for what constitutes health supporting environments, and gives guidance on how to achieve them. The mapping and mobilization of social capital in local communities may be one way of achieving community action for health promotion. Further, the distinction of bonding, bridging, and linking social capital can provide ideas on the importance of balancing various network links that allow community action processes to emerge, such as withinand between-community networks, as well as links to political institutions.

From a global perspective, social capital cannot be used as a 'cookbook' for smooth achievement of supportive environments and community action, since social capital by necessity is context bound. However, social capital can provide new ideas about the processes that influence human interactions, cooperation and community action for health promotion in various contexts.

Acknowledgements

I wish to acknowledge the Västerbotten County Council who financed my PhD position. My thesis work was undertaken within the Centre for Global Health at Umeå University, with support from FAS, the Swedish Council for Working Life and Social Research (Grant No. 2006-1512).

Conflict of interest and funding

The author has not received any funding or benefits from industry or elsewhere to conduct this study.

References

- Kawachi I, Subramanian SV, Kim D. Social capital and health: a decade of progress and beyond. In: Kawachi I, Subramanian SV, Kim D, eds. Social capital and health. NY: Springer; 2008 pp. 1–26.
- Schuller T, Baron S, Field J. Social capital: a review and critique.
 In: Baron S, Field J, Schuller T, eds. Social capital: critical perspectives. NY: Oxford University press; 2000 pp. 1–38.
- Gidengil E, O'Neill B. Removing rose colored glasses: examining theories of social capital through a gendered lens. In: O'Neill B, Gidengil E, eds. Gender and social capital. NY: Routledge; 2006 pp. 1–14.
- 4. Portes A. Social capital: its origins and applications in modern sociology. Annu Rev Sociol 1998; 24: 1–24.
- Bourdieu P. The forms of capital. In: Richardson JG, ed. Handbook of theory and research for the sociology of education. Westport, CT: Greenwood Press; 1986 pp. 241–58.
- Coleman JS. Social capital in the creation of human capital. Am J Sociol 1988; 94 (Suppl): 95–120.
- Berkman LF, Glass T. Social integration, social networks, social support, and health. In: Berkman LF, Kawachi I, eds. Social epidemiology. NY: Oxford University Press; 2000 pp. 137–73.
- Bartley M. Health inequality. An introduction to theories, concepts, and methods. Cambridge: Polity Press; 2004.
- Merzel C, D'Afflitti J. Reconsidering community-based health promotion: promise, performance, and potential. Am J Public Health 2003; 93: 557–74.
- Marmot M. Status syndrome. How your social standing directly affects your health and life expectancy. London: Bloomsbury Publishing; 2005.
- Putnam RD. Making democracy work: civic traditions in modern Italy. Princeton, NJ: Princeton University Press; 1993.
- Putnam RD. Bowling alone: the collapse and revival of American community. NY: Simon & Schuster; 2000.
- Campbell C, Wood R, Kelly M. Social capital and health. London: Health Education Authority; 1999.
- Eriksson M, Dahlgren L, Emmelin M. Understanding the role of social capital for health promotion beyond Putnam: a qualitative case study from northern Sweden. Soc Theor Health 2009; 7: 318–38.
- Westlund, H. Social capital in the knowledge economy. Theory and empirics. Berlin Heidelberg: Springer; 2006.
- Woolcock M. The place of social capital in understanding social and economic outcomes. ISUMA: Can J Polic Health Res 2001; 2: 11–7.
- Szreter S, Woolcock M. Health by association? Social capital, social theory, and the political economy of public health. Int J Epidemiol 2004; 33: 650–67.
- 18. Portes A. The two meanings of social capital. Sociol Forum 2000; 15: 1–12.
- Wilkinson RG. Unhealthy societies. The afflictions of inequality. NY: Routledge; 1996.
- Kawachi I, Berkman L. Social cohesion, social capital, and health. In: Berkman LF, Kawachi I, eds. Social epidemiology. NY: Oxford University Press; 2000 pp. 174–90.
- Grootaert C, van Bastelaer T. Social capital: from definition to measurement. In: Grootaert C, van Bastelaer T, eds. Understanding and measuring social capital: a multidisciplinary tool for practitioners. Washington, DC: World Bank Publications; 2002 pp. 41–84.
- Turner B. Social capital, inequality, and health: the Durkheimian revival. Soc Theor Health 2003; 1: 4–20.
- Kawachi I, Kennedy BP, Glass R. Social capital and self-rated health: a contextual analysis. Am J Public Health 1999; 89: 1187–93.

- 24. Kim D, Subramanian SV, Kawachi I. Social capital and physical health: a systematic review of the literature. In: Kawachi I, Subramanian SV, Kim D, eds. Social capital and health. NY: Springer; 2008 pp. 139–90.
- Campbell C, Jovchelovitch S. Health, community and development: towards a social psychology of participation. J Community Appl Soc Psychol 2000; 10: 255–70.
- Harpham T, Grant E, Thomas E. Measuring social capital within health surveys: key issues. Health Policy Plan 2002; 17: 106–11
- Krishna A, Shrader E. Cross-cultural measures of social capital: a tool and results from India and Panama. Social capital initiative, working paper No. 21. Washington, DC: The World Bank: 2000.
- Gittell R, Vidal A. Community organizing. Building social capital as a development strategy. Thousand Oaks, CA: Sage Publications; 1998.
- 29. Harpham T, Grant E, Rodriguez C. Mental health and social capital in Cali, Colombia. Soc Sci Med 2004; 58: 2267–77.
- Islam MK, Merlo J, Kawachi I, Lindström M, Gerdtham U-G. Social capital and health. Does egalitarianism matter? A literature review. Int J Equity Health 2006; 5: 3. DOI: 10.11 86/1475-9276-5-3.
- Eriksson M, Dahlgren L, Janlert U, Weinehall L, Emmelin M. Social capital, gender and educational level – Impact on selfrated health. Open Public Health J 2010; 3: 1–12.
- 32. Muntaner C, Lynch J. Social capital, class gender and race conflict, and population health: an essay review of Bowling Alone's implication for social epidemiology. Int J Epidemiol 2002; 31: 261–7.
- Lynch J, Due E, Muntaner C, Davey Smith G. Social capital is it a good investment strategy for public health? J Epidemiol Commun Health 2000; 54: 404–8.
- 34. Engström K, Mattsson F, Järleborg A, Hallqvist J. Contextual social capital as a risk factor for poor self-rated health: a multilevel analysis. Soc Sci Med 2008; 66: 2268–80.
- 35. Poortinga W. Social relations or social capital? Individual and community health effects of bonding social capital. Soc Sci Med 2006; 63: 255–70.
- 36. Kawachi I, Kennedy BP, Lochner K, Prothrow-Stith D. Social capital, income inequality, and mortality. Am J Public Health 1997; 87: 1491–8.
- 37. Subramanian SV, Kawachi I, Kennedy BP. Does the state you live in make a difference? Multilevel analysis of self-rated health in the US. Soc Sci Med 2001; 53: 9–19.
- Snelgrove JW, Pikhart H, Stafford M. A multilevel analysis of social capital and self-rated health: evidence from the British Household Panel Survey. Soc Sci Med 2009; 68: 1993–2001.
- 39. Eriksson M, Ng N, Weinehall L, Emmelin M. The importance of gender and conceptualization for understanding the association between collective social capital and health: a multilevel analysis from Northern Sweden. Submitted.
- 40. WHO. The Ottawa charter for health promotion. Geneva: World Health Organization; 1986.
- 41. Heaney CA, Israel BA. Social networks and social support. In: Glanz K, Rimer BK, Lewis FM, eds. Health behavior and health education. Theory, research, and practice. San Francisco, CA: Jossey-Bass; 2002 pp. 185–209.
- 42. Macinko J, Starfield B. The utility of social capital in research on health determinants. Milbank Q 2001; 79: 387–427.
- 43. Kawachi I, Kim D, Coutts A, Subramanian SV. Commentary: reconciling the three accounts of social capital. Int J Epidemiol 2004; 33: 682–90.
- Ziersch AM. Health implications of access to social capital: findings from an Australian study. Soc Sci Med 2005; 61: 2119– 31.

- 45. Mitchell CU, LaGory M. Social capital and mental distress in an impoverished community. City Community 2002; 1: 199–222.
- 46. Silvey R, Elmhirst R. Engendering social capital: women workers and rural–urban networks in Indonesia's crisis. World Dev 2003; 31: 865–79.
- 47. Kawachi I, Berkman L. Social ties and mental health. J Urban Health 2001; 78: 458–67.
- 48. Mittelmark MB. Health promotion at the community level: lessons from diverse perspectives. In: Bracht N, ed. Health promotion at the community level 2. New Advances. Thousand Oaks, CA: Sage Publications; 1999 pp. 3–27.
- 49. Kavanagh AM, Bentley R, Turrell G, Broom DH, Subramanian SV. Does gender modify associations between self-rated health and the social and economic characteristics of local environments? J Epidemiol Commun Health 2006; 60: 490–5.
- Stafford M, Cummins S, Macintyre S, Ellaway A, Marmot M. Gender differences in the associations between health and neighborhood environment. Soc Sci Med 2005; 60: 1681–92.
- Wakefield SEL, Poland B. Family, friend or foe? Critical reflections on the relevance and role of social capital in health promotion and community development. Soc Sci Med 2005; 60: 2819–32.
- Green LW, Kreuter MW. Health Promotion Planning: an educational and ecological approach. Mountain View, CA: Mayfield Publishing Company; 1999.
- Hooghe M, Stolle D. Introduction: generating social capital. In:
 M. Hooghe M, Stolle D, eds. Generating social capital:

- civil society and institutions in comparative perspective. NY: Palgrave Macmillan; 2003 pp. 1–18.
- 54. Eriksson M, Dahlgren L, Emmelin M. Collective actors a driving forces for mobilizing social capital in a local community: what can be learned for health promotion? Accepted for publication In: Westlund H, Kobayashi K, eds. Social capital and rural development. Edward Elgar; forthcoming.
- Clarke AE. Situational analysis: grounded theory after the postmodern turn. Thousand Oaks, CA: Sage Publications; 2005.
- Eriksson, M. Social capital, health and community action implications for health promotion. PhD dissertation, Umeå University, Umeå, 2010.
- 57. Muntaner C, Lynch J, Davey Smith G. Social capital and the third way in public health. Crit Publ Health 2000; 10: 107–24.
- 58. Hawe P, Shiell A. Social capital and health promotion: a review. Soc Sci Med 2000; 51: 871–85.

*Malin Eriksson

Department of Public Health and Clinical Medicine Epidemiology and Global Health Department of Social Work Umeå University SE-901 85 Umeå, Sweden

Tel: +46 (0) 90 785 3346 Fax: +46 (0) 90 13 8977

Email: malin.eriksson@socw.umu.se, malin.eriksson@epiph.umu.se